

**TRIDENT SHIP CONTROL OPERATOR TRAINER, DEVICE 21C10****TRAINING CATEGORY:**

UNDERSEA OPERATIONS (SHIP)  
(Ship Control Damage Control)

**ORIGINATING AGENCY:**

CNET

**SECURITY CLASSIFICATION:**

Device 21C10 is Confidential.

**PURPOSE OF DEVICE:**

Provide ship control party training at the individual equipment and team/system level, in tactical operation and coordination. Provides hands-on instruction in the procedures, operations, and functions required to operate the Trident Ship Control System.

**INTENDED USE:**

For use at Trident Training Facilities, Kings Bay, GA and Bangor, WA. Used to conduct Trident ship control refresher team training and battle stations missile ship control refresher team training under the following conditions: Normal underway submerged, Battle Stations, missile, and Emergency ship control.

**FUNCTIONAL DESCRIPTION:**

Device 21C10A and 21C10 consist of two (2) Trident submarine trainers. The trainers achieve realistic environment, layout, appearance and operation of control and instruments of the Trident Submarine. The trainers include realistic digital computer simulation of all important ship control systems, which respond dynamically during a problem run in the manner of actual submarine systems. The motion platform meets the frequency response, range of motion, and rates of travel and acceleration to realistically simulate the Trident submarine. The internal environment reproduces the ship control stations by furnishing and activating all equipment that indicates movement of the submarine through the ocean and providing the necessary communications circuits. The external environment consists of surface effects, near surface effects, sea state, and bathythermal effects. The establishment of a specific problem environment (including initial conditions, control, and monitor), is accomplished by the instructor through the use of the instructor's console. The instructor may also utilize the console to insert malfunctions and casualties.

## DIRECTORY OF NAVAL TRAINING DEVICES

The major equipment elements within the trainer enable the ship control party to be trained in the following functional areas: Depth and Course Control, MBT Vent and Blow Control, List Control, Trim and Drain Control, Hovering Control, Missile Compensation Control, and Command and Control Exercises (COMCONEX). Other major components of the trainer include the on-board instructor station with consoles, a digital computer and associated equipment, a hydraulic plant, and in Kings Bay a separate trainer air conditioning system.

## PHYSICAL INFORMATION:

The trainers although similar in structure are located in facilities with different floor plans. Kings Bay, Device 21C10A, SCTT trainer room is approximately - 28' 8" wide x 27' long and 24' 8" high and the computer room, 8' 8" wide x 30' 1" long. Bangor, Device 21C10, SCOT trainer room is approximately 29' 5" wide x 25' long and 37' 8" high and a computer room approximately 16' x 20'.

## OPERATIONAL EQUIPMENT:

1. Headset MIC/H274
2. S/P Headset H200/U
3. Microphone M131A-WIC

## POWER REQUIREMENTS:

120VAC, 400 Hz., 1.3 KVA, 4-Wire Wye  
440 VAC, 60 Hz., 35.1 VA Delta

## PUBLICATIONS FURNISHED:

1. NTSC P-5395 (U) Technical Manual
2. NTSC P-5396 (U) Planned Maintenance System (PMS)
3. NTSC P-5397 (U) Technical Manual with Supplementary Data, Commercial Equipment
4. NTSC P-5398 (U) Instructor's Utilization Handbook for Simulation Equipment
5. NTSC P-5399 (U) On-The-Job Training Handbook - Instructor Training Program
6. NTSC P-5400 (U) On-The-Job Training Handbook - Maintenance Qualification Program
7. NTSC P-5753 (U) Vendor Documentation (Digital Computer System)
8. NTSC P-5754 (U) Training Course Curriculum Outline

## PERSONNEL:

**Instructor:** Two (2) Chief or 1st Class PO, qualified diving officer and a graduate of the Instructor Training School.

**Operator:** Instructor-Operated

**Trainees:** Six (6)

**Maintenance:** As specified under current COMS contract.

## CONTRACT IDENTIFICATION:

Manufactured by Systems and Simulation, Inc., Tampa, FL under NAVTRASYSCEN Contract No. N61339-86-C-0148.

## LOCAL STOCK NUMBER:

6930-LL-C00-4213